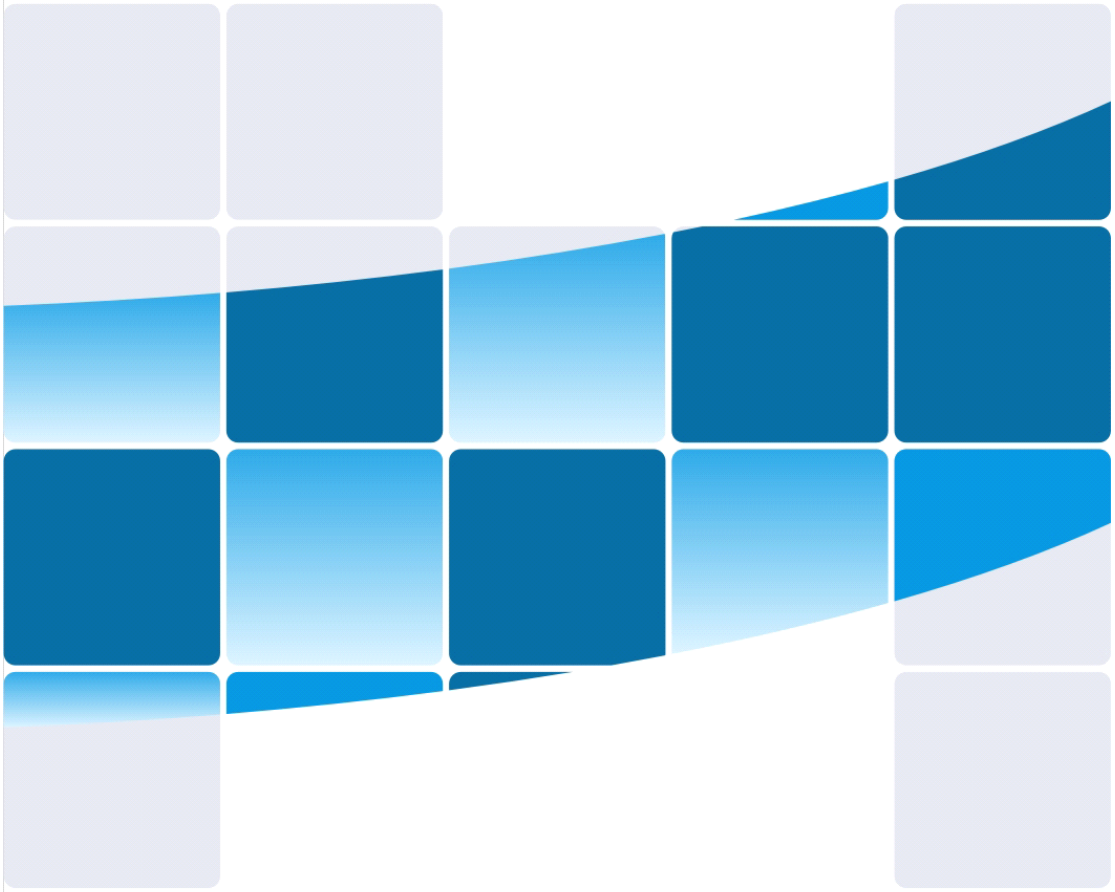

F Series IP Camera User Manual

MFN-E-A3

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1. Products Introduction

An IP Camera is a new generation product combined with an analog camera & IP video technology. An IP camera has an analog camera's full function, additionally it can compress and encrypt video and audio signal through internet by sending them to remote terminals with its built-in processor and web server. Via its IP address, users can use standard PC IE browser to view IP camera and monitor targets in real time, manage and store video or image. PTZ control is also available through network.

Being a new member of camera family, IP camera shares the same operation functions with the analog camera, such as auto white balance, auto shutter speed, AGC, auto backlight compensation etc. On the other hand, IP camera supports remote access through internet and multi-user visit. Some IP cameras are able to extend to both analog and digital signal.

F series IP camera's core is 32Bit RSIC. It adopts standard MJPEG compression format. The camera sensor is CMOS which supports auto white balance and backlight balance, support IE, cell phone browser, centralized monitor interface management. In general, as its function of audio simplex & duplex, infrared, wired, wireless, POE, PZT, local storage, it has hundreds of products, to meet requirements of various kinds of users.

1.1. Specifications

*- Adopt high Performance, strong function media processor 32Bit RSIC
*- High Sensitivity sensor CMOS
*- Adopt optimized MJPEG video compression algorithm, realize high-definition images transmission in narrow bandwidth;
*- Support maximum 5 users viewing at the same time, no limitation of users if using Forwarder Server function;
*- Built in Web Server，it is convenient for users to use standard browse to realize the real time monitoring and setting administration;
*- Support WIFI: 802.11b/g wireless networking;
*- Support remote system update;
*- Support DDNS analysis, support LAN & Internet (ADSL、Cable Modem)
*- Support variety of network protocol: TCP/IP, UDP, SMTP, PPPoE, Dynamic DNS, DNS Client, SNTP, BOOTP, DHCP, FTP, SNMP, WIFI/802. 11b/g
*- Selected models support one/ two way audio talkback;
*- Support Motion Detection alarm function (set area & sensitivity);
*- Support image snap
*- Abnormal automatic recovery function, if Network Interruption can auto connection
*-Support mobile view
*- Some models support 15 preset positions and call preset positions when alarming

Image Compression Format	Standard M-JPEG
Sensor	CMOS，300,000 pixel
Image Resolution Rate	VGA（640x480）/QVGA（320x240）
Network interface	RJ-45/10-100 Base T ，802.11b/g
Network protocol	TCP/IP,FTP,SMTP,HTTP,UDP,DHCP,NTP,DDNS,UPNP,DNS,PPPOE
Image Max Transmission Rate	30 frame/second（QVGA）, 15 frame/second（VGA）
Alert control	Output: 1 router（5VDC，0.1A）；input: 1 router（closure Trigger）
Motion Detection	Support
Software Update	Users automatically upgrade
Monitor Mode	IE browse or special program
Playback Mode	Microsoft Media Player
Security	3rd ranks password authority setting
Minimum illumination	2.0Lux@550nm
Auto White Balance	Support
Working environment	-10C°– 50C°，20% - 80%RH

Parameters Form

1.2. Applications

The series products usually can be applied to big department, supermarket, home, factory, workshop etc.

Untie the pack and check the items contained against the following list:
Wireless IP Camera----------1
Wi-Fi Antenna----------1
DC Power Supply----------1
CD---------- ----------1
Manual---------- ----------1
Mounting Bracket----------1
Screws----------2

NOTE: Contact us immediately in the case of any damaged or short of contents.

1.3. System Requirements

Minimum Hardware Configuration
CPU: Pentium 1.6 GHz
Memory: 256MB
Audio card: need audio monitor, two way talk essential
Hard Disk : if need to record video image，no less than 40G
Operation System: 32 bit simple/ English Windows2000、Windows XP、Windows2003、Windows Vista & 64 bit simple Chinese/English Windows2003、Windows XP、Windows Vista etc.
Software environment
IE 5.0 or above version
DirectX8.0 or above version
TCP／IP network protocol

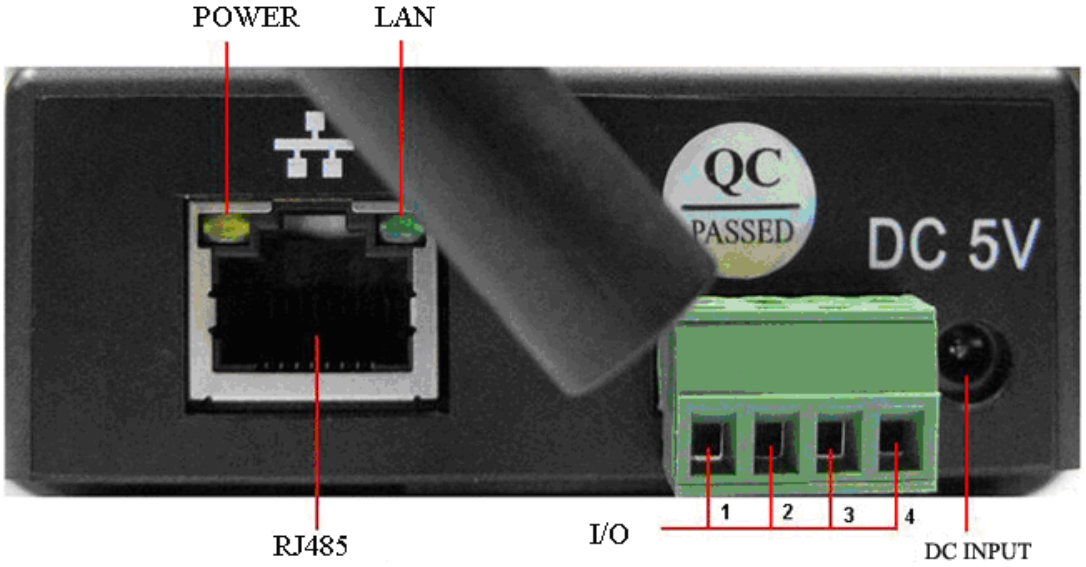
2. Interface & Installation

There are two kinds of interfaces for F series IP camera: one is body guard interface, the other is the extend line interface. Here we give detailed explanations on two representative products:

Non-extended line IP Camera icon Extended line IP Camera icon

2.1. Interface

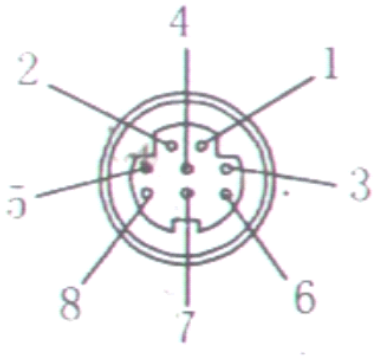
Non-extended line IP Camera Tailgate



Power Supply Light: constant on when power is on
Network light: constant flash when power is on which shows data transmission.
Ethernet interface: RJ-45 interface.
I/O interface: 1 router alarm input, accept 3, 4 two terminals (input terminal grounding, low level effective trigger); 1 router TTL control input, connect 1, 2 two terminals (1, 2 terminals short connections).
Power input interface: connect direct current 5V Power
Extension line interface definition icon:

Power: direct current 5V.
GPIO alarm interface: accept external connection linkage alarm equipment (for example: door magnet, infrared)
Reset line: Short circuit two lines with power off, then power on for 10 seconds to return back default setting
Ethernet interface: RJ-45 network interface.

Backup: follow-up product extend interface.



About GPIO alarm interface (S terminal) definition:

1# +DC12V
2# RS485（A）
3# Earth（GND）
4# IO2 （OUT PUT）
5# RS485 （B）
6# IO1 （IN PUT）
GND: Ground，alarm input ground，RS485 ground
RS485: RS485 control interface，left connection RS485 negative right connection RS485 positive. connect P/T decoder，support variety PTZ protocol.

2.2. Installation

IP camera process image transmission on the network through the usage of Internet technology, which offers DDNS function for static IP, dynamic IP and PPPoE dialing users. IP Camera can connect to outer net through LAN, which can also be connected directly.

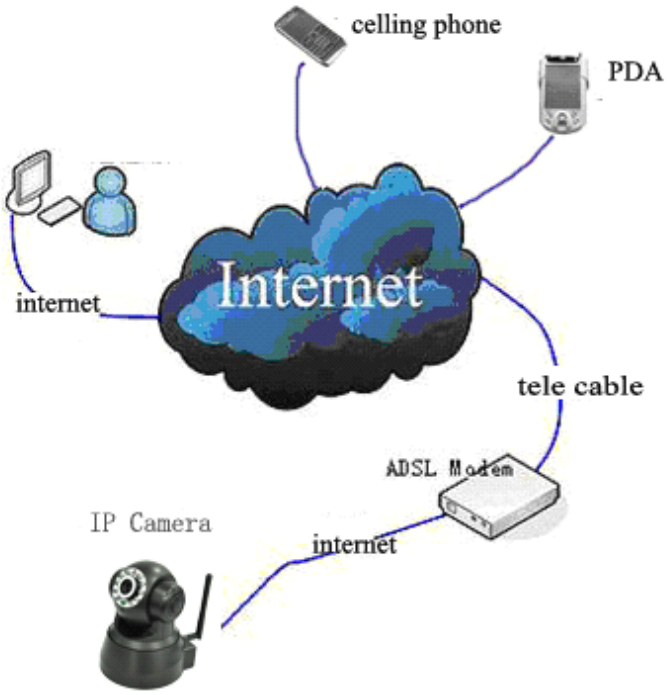
There are 3 commonly used network connections in IP Camera:

2.2.1. Installation in LAN.

This is the most popular network access method. As long as there is a router, using internet cable directly connect router to IP Camera, then IP Camera can be connected to Internet as normal PC, as showing in the following picture:

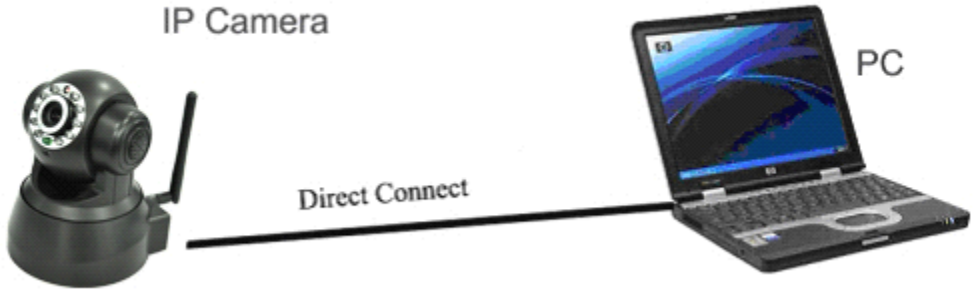
2.2.2. PPPoE Installation

Under this condition, users need to set up PPPoE dialing parameter in IP Camera: input the username and password provided by ISP supplier' offer, this will allow the IP Camera to connect to internet by dialing connects. As for setting the PPPoE dialing parameter, you can connect device to network through the first method, then write parameter to the device, or through the following third method, directly write process parameter to device. Please refer to 3.4.5.for detailed steps on how to set up PPPoE



2.2.3. IP Camera & PC connection

This method does not use frequently, when you process machine write parameter or program shift, we suggest you to use the first connect network method to process the modification of machine parameter.



connect power to IP camera (note: don't apply for wrong power), after one minute modification of IP camera, video could be connected via internet cable to IP camera; under the normal condition, yellow light is on, green light flickers, now physical connection of IP camera are finished. (In order to connect successfully, we advise to set camera IP as the stable IP at the same net range of PC in LAN, please refer to 8 frequent asked questions on how to set camera IP as the stable IP at the same net range of PC in LAN).

3. IE Browse to IP Camera

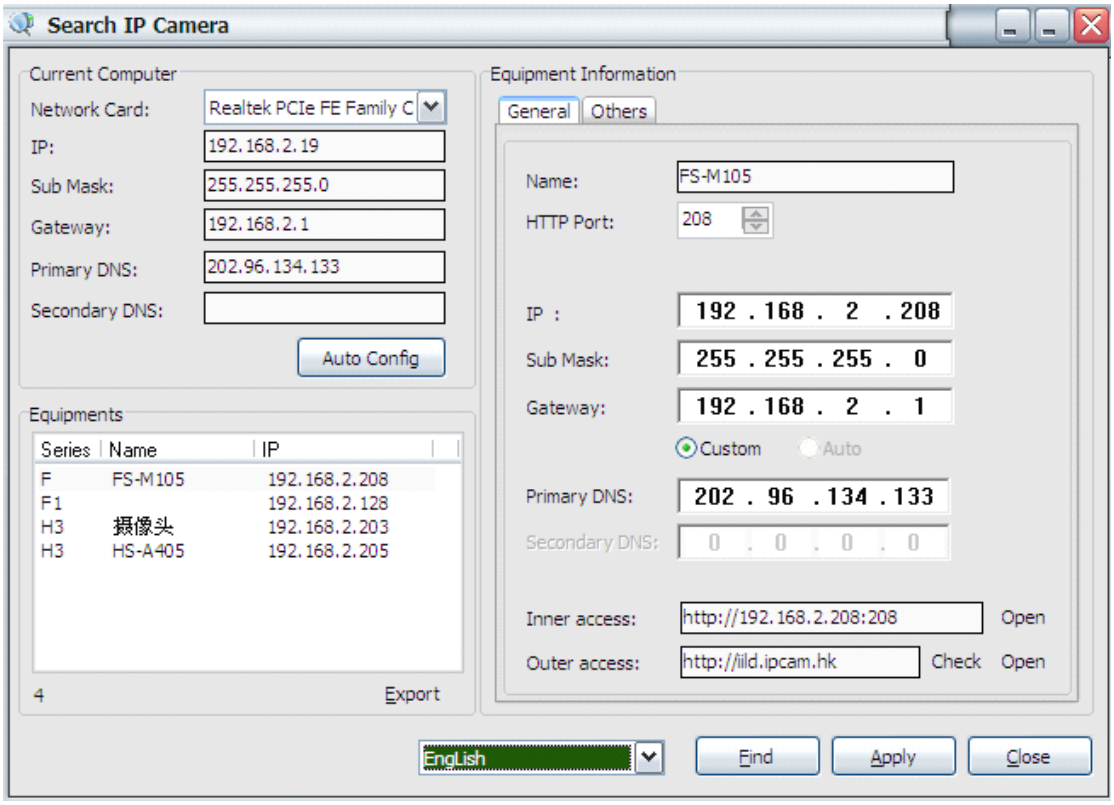
After IP camera connects to PC LAN through router, you can operate on IP camera via PC, first please run the relative software in the CD kit

3.1. Use Finder

Open the disk, double click

file, and double click

search bar icon will be found, double click search bar, then the following interface will appear:



If the internet cable power connect is correct, it should show device styles, name, and IP address in the device list, (if it dose not show, please confirm power & internet cable connection).

For the interface, left side is the current computer configuration information; right side is the selected device network configuration information. Default IP camera address will be set automatically according to the LAN, manually setting is not needed(Note: DHCP should be opened in the router), HTTP port is 81.

Inner Access refers to the LAN access address**; Outer Access** refers the WAN access

address.

	Before external net visit IP camera, port forwarding is necessary in the senior router ,for more detail please refer to " **Port Forwarding Settings in router** "in 8.1 section.

	Note: 1. Device information indicates IP camera information. 2. When the current computer has a fixed IP, (namely non-DHCP IP), and the IP camera is used for the first time, please click **automatic setup**, so that IP address of the IP camera, gateway and DNS can be synchronous with the PC. 3..If it needs manually modify camera name, HTTP interface, IP address, sub-net mask, gateway, main DNS server, backup DNS server, etc. please click apply after modification, enter IP camera username and password, click confirm.

3.2. Logging and Active X Installation

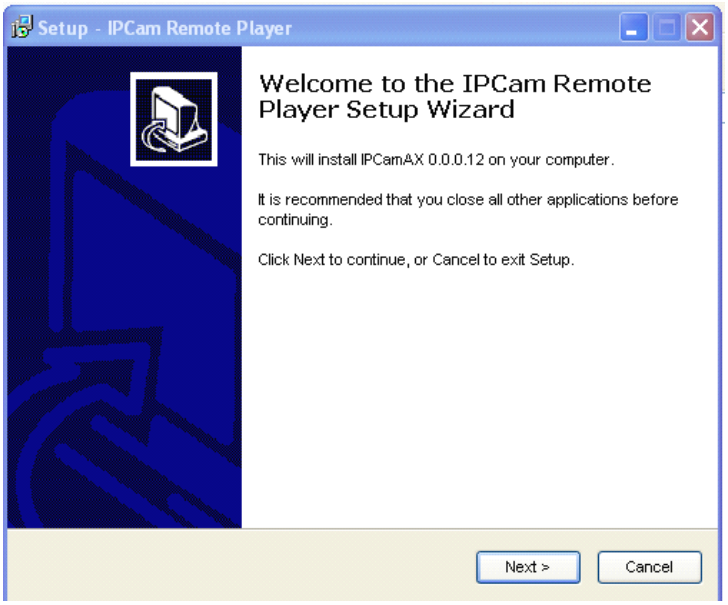
Before IE monitoring through web, it is necessary to install a video plug-in, there are 2 kinds of installation mode as shown below:

1. Open disk,

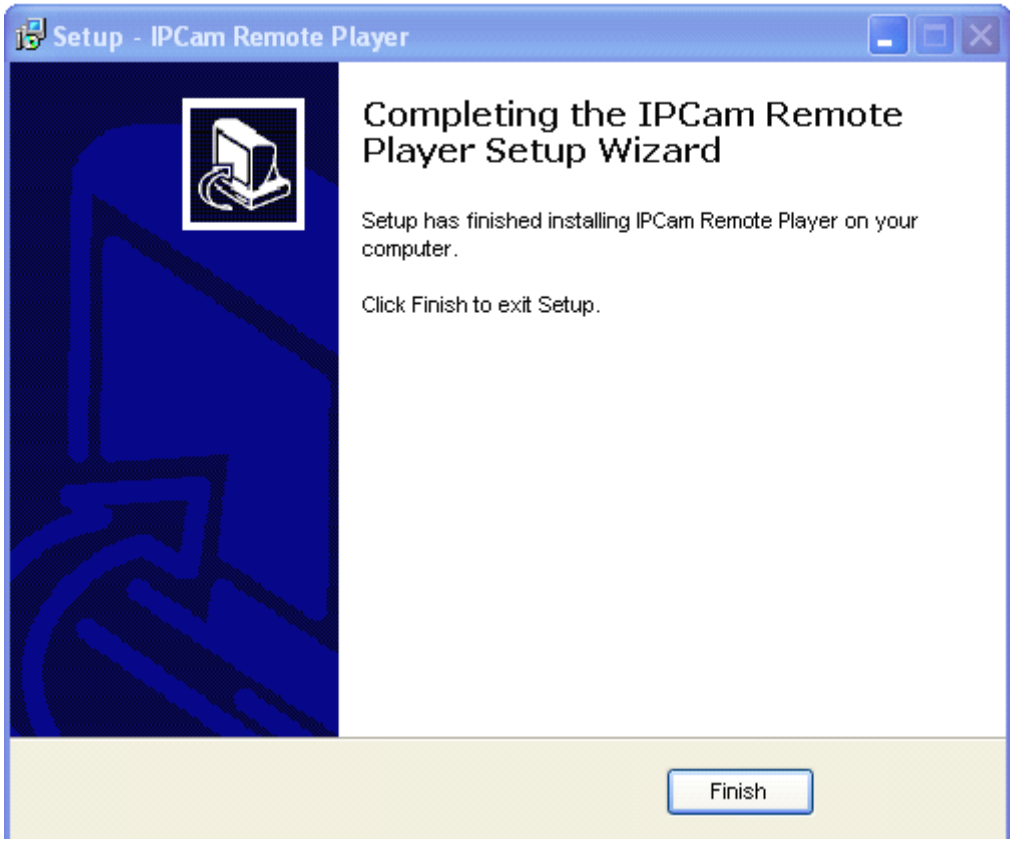
file, double click inner

, process installation, the installation process is as shown below:

a. Click the next step to continue

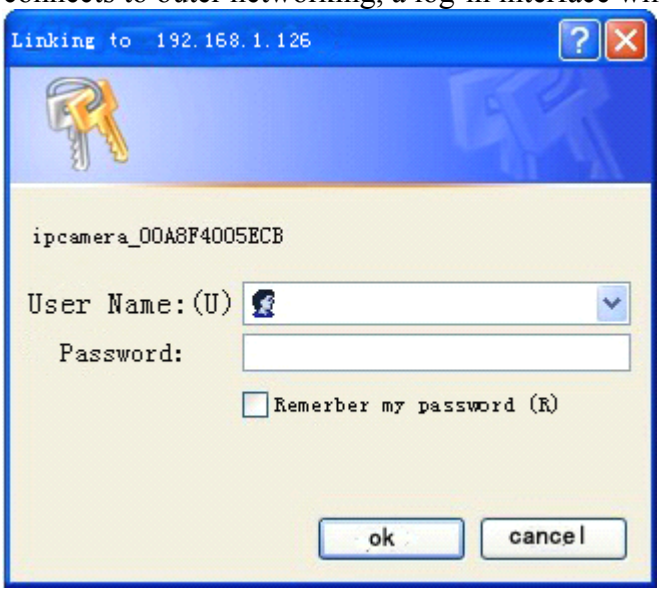

Setup - IPCam Remote Player
Welcome to the IPCam Remote Player Setup Wizard
This will install IPCamAX 0.0.0.12 on your computer.
It is recommended that you close all other applications before continuing.
Click Next to continue, or Cancel to exit Setup.
Next >
Cancel

b. Click finish


Setup - IPCam Remote Player
Completing the IPCam Remote Player Setup Wizard
Setup has finished installing IPCam Remote Player on your computer.
Click Finish to exit Setup.
Finish

2. Open web page，you can directly click open button which is behind inner visit address or outer visit address in the search bar, also you can directly input relatively inner and outer visit address in web page address bar such as: http: //192.168.1.126（LAN）, http: //dpvz.ipcam.hk（WAN）.

3. When the item connects to outer networking, a log-in interface will appear:



Enter log in information, click OK to enter, an installation pop-up will appear, after installation is completed then you can use it. If it is blocked and requires plug-in installation by antivirus software, please remove block.

Note:

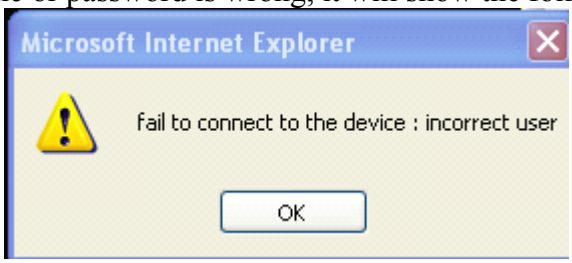
1. Default device account is admin， no password.
2. M series IP camera doesn't support Firefox browser， while F series support.

3.3. Operation Keys

After sucesseful logging in, it displays monitor image on left side , and control bottons used for operations on the right side:

3.3.1. Equipment Status

When login name or password is wrong, it will show the following hint:



3.3.2. Administrator Operation

Click **Sign in**, a pop-up will show, Sign in with ActiveX Mode(for IE)

IP Camera
ActiveX Mode (For IE Browser)
Sign in
Server Push Mode (For FireFox, Google Browser)
Sign in
Mobile Phone (For Browser that supports Javascript)
Sign in
iPod touch / iphone 2G, 3G, 3GS, 4 and iPad dedicated
Sign in
Language: English
do not show next time

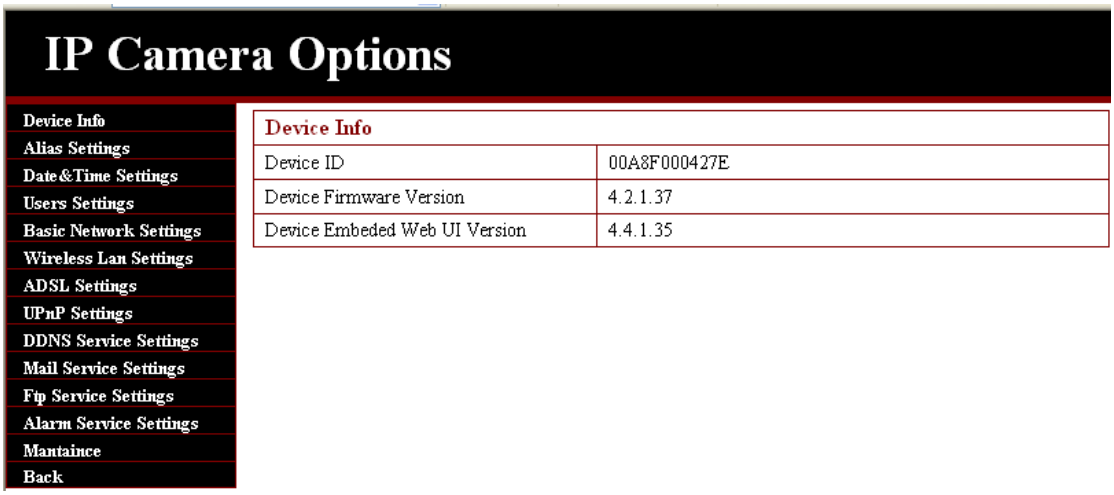
3.3.3. Operation

1. Image mirror indicates a reverse image.
2. Resolution, mode, brightness, contrast default setting are: 320*240、50HZ、6、4, mode is mainly for the adjustment of Light strength, please adjust to 60HZ when light is poor or in dark.
3. There are 3 browse modes in IE mode: visitor, operator, administrator. The authority of administrator is the highest. log in as different authorities, the operation will be different. Regarding to 3 user authorities, please refer to 3.4.4. Equipment User Administration.

3.4. Basic Settings

Click administration operation

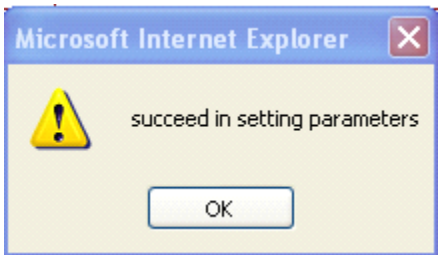
, enter the parameter



Note: in basic setting, when you make a modification, please click setting. A hint interface will pop up

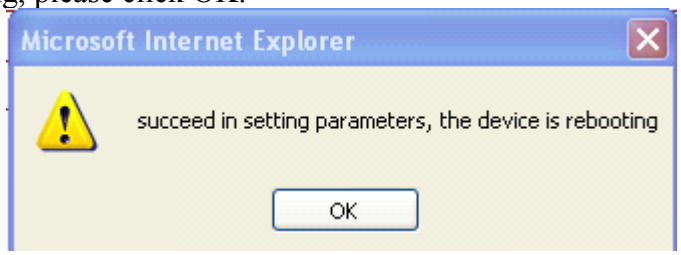
1）the right interface will indicate

the parameter setting operation is successful, please click OK then refresh.

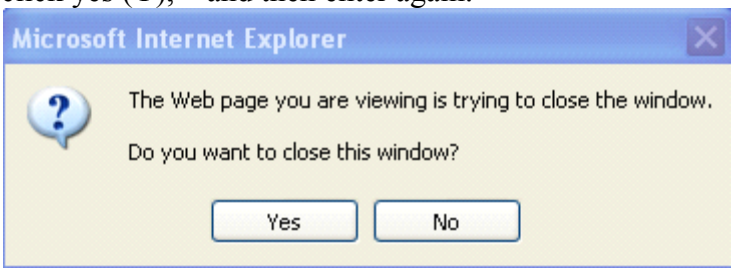


2) the right interface will indicate the parameter setting operation is successful, and need restart

to finish setting, please click OK.



If system indicates to restart (as right photo),
please single click yes (Y), and then enter again.


Microsoft Internet Explorer
The Web page you are viewing is trying to close the window.
Do you want to close this window?
Yes
No

3.4.1. Device Information

The device information includes the above interfaces, device serial number （MAC）、 device system firmware version, device application firmware version.

3.4.2. Device Name Settings

Alias Settings	
Alias	IPCAM
Submit	Refresh

Here the table displays camera name, such as the name search on search bar, the name following mentioned as multiple channels equipments setting and so on.

3.4.3. Device Clock Settings

Date&Time Settings	
Device Clock Time	1970年1月1日 8:20:02
Device Clock Timezone	(GMT) Greenwich mean time; London, Lisbon, Casablan
Sync with NTP Server	☑
Ntp Server	time.nist.gov
Sync with PC Time	☐
Submit	Refresh

You can adjust time via NTP server or PC in this table.

3.4.4. Device User Settings

User can proceed with setting according to the interface as below. The system is available for administrator, operator, visitor whose authority are listed in order..

Users Settings

User	Password	Group
admin		Administrator
		Visitor
		Visitor
		Visitor
		Visitor
		Visitor
		Visitor
		Visitor

Submit Refresh

Note: At least one administrator is needed for the device;

3.4.5. Basic Network Settings

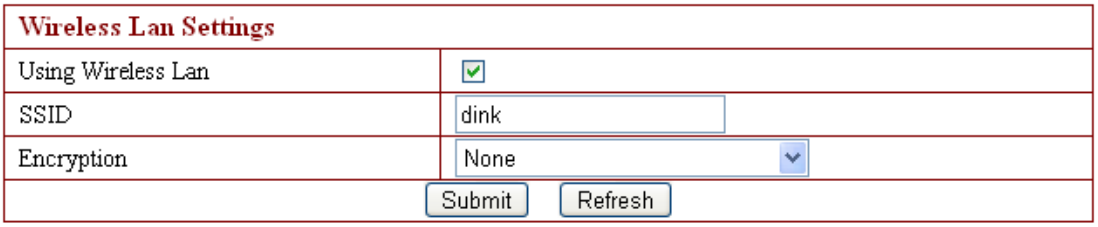
Basic Network Settings

Obtain IP from DHCP Server	☐
IP Addr	192.168.2.126
Subnet Mask	255.255.255.0
Gateway	192.168.2.254
DNS Server	202.96.128.86
Http Port	81

Submit Refresh

This sector is for DHCP and IP configuration. The port forwarding is needed, If you want to set IP address，please fill in the relative IP address、subnet mask, gateway, DNS server, Http port;

3.4.6. Wireless LAN Settings

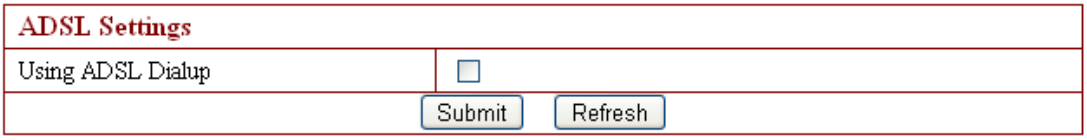


Referring to the wireless networking setting, there are 5 security modes: **None, WEP, WPA Personal（TKIP, WPA Personal（AES）, WPA2 Personal（AES） and WAP2 （TKIP+AES）.**

Note:

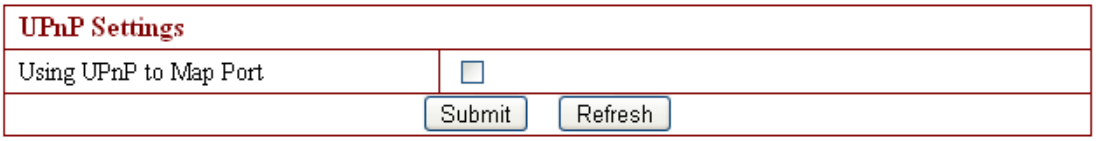
1. To connect internet through wireless network, the camera SSID number must be the same with the wireless router and other AP device SSID number,
2. Our default camera SSID number is dink.

3.4.7. ADSL Settings



While camera needs to be connected to ADSL directly, just tick the ADSL box to run, then enter the ADSL user name and ADSL password which provided by ISP (network suppliers), and click to save;

3.4.8. UPnP Settings



The full name of UPnP is Universal Plug and Play, which is Plug_and_play. It is the same saying as automatic port forwarding. If users need to use this function, router must support this function and users just need to run it, then tick the above box;

3.4.9. DDNS Settings

DDNS Service Settings	
DDNS Service	IPCam
DDNS User	bahl
DDNS Password	••••••
DDNS or Proxy Server	user.ipcam.hk
DDNS or Proxy Port	808
DDNS Status	Connecting ...
Submit Refresh	

All the above information are set up when the device is ready. Users generally do not need to change. In case of any accidental loss, user needs to re-obtain the domain name, and fill it himself, juts do as the above, the user's name is just the first four characters, and this is for remote access. For example, http: //abcd.ipcam.hk, the user's name is abcd. The password is DDNS. (The password can be obtained on the device body or contact the supplier). When connected, it displays "xxxxx is OK" on DDNS state; it means that it was successfully set. If you need to use your own Dynamic DNS, please select the appropriate service providers (on DDNS service) then enter the following information, then save it;.

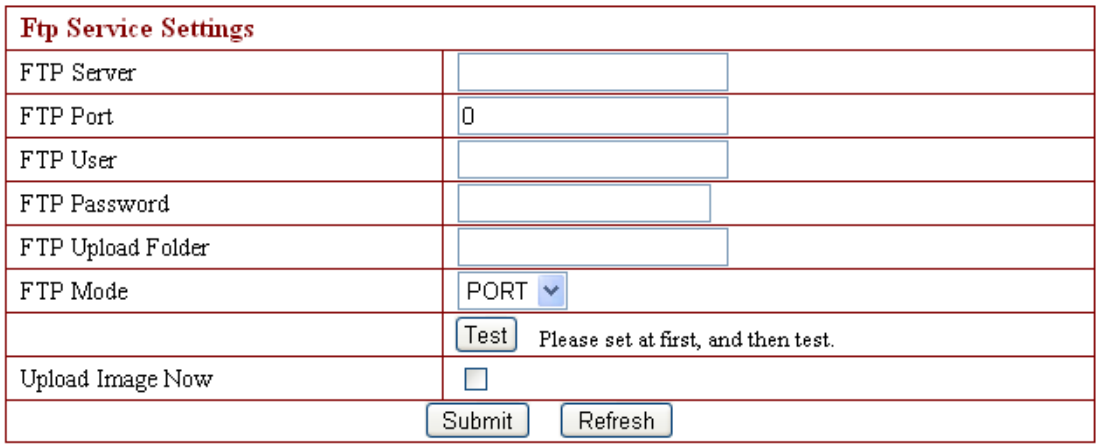
3.4.10. SMTP Settings

Mail Service Settings	
Sender	
Receiver 1	
Receiver 2	
Receiver 3	
Receiver 4	
SMTP Server	
SMTP Port	25
Need Authentication	☐
	Test Please set at first, and then test.
Report Internet IP by Mail	☐
Submit Refresh	

The above setting is a preparation for the alarm function, the sender's email address should be entered by the sender，while the recipient E-mail address is filled in by recipient 1,2,3,4. SMTP server should be filled in the sender email SMTP server，for example the sender email address is abc@163.com，then here enter mail.163.com. Generally SMTP port is 25， no need to change. If the SMTP port required to check, just tick it, and enter SMTP user name and SMTP password, which are provided by Email provider， then test according to reference. If report needs to send, please tick report internet IP by Mail. The e-mail server and other information can be obtained

from the mail service provider. The email notifications are pictures captured by camera when alarm is on. if no email notification is needed, there is no need to choose this one..

3.4.11. FTP Service Settings

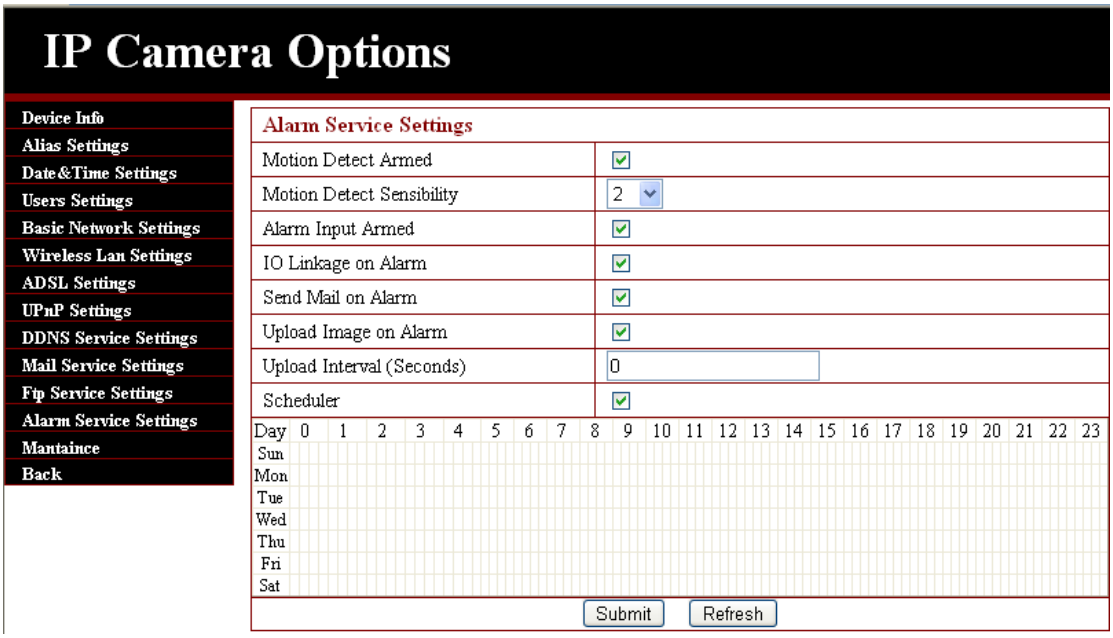


Above setting is equally similar to Mail Server Settings， when alarming is on it will send pictures， please enter FTP server, FTP port, FTP user, FTP password, FTP upload directory and FTP mode. The FTP mode has two options: PORT and POSV. If a quick upload picture is need , select Upload Image Now and change its interval （second）。

3.4.12. Alarm Service Settings

As shown below, there are two modes of alarm trigger. One is motion detection, pleas refer to below interface， the sensitivity of motion detection can be adjusted according to the users′ requirement, the higher the number is, the lower sensitivity is. Another one is input alarm, when connected, it triggers alarm through alarm input signal which connects to linkage alarm GPIO;

When triggered, there are 3 alarm modes: one is IO alarm linkage, camera connects with linkage alarm box through GPIO, sound the siren ； the second is email notification, send email with images captured；the last is upload pictures alarm，as the way mentioned before FTP upload pictures alarm, Upload pictures interval（second）keeps consistent with the mentioned upload pictures interval of Ftp service settings. The schedule refers to arming time， as the selected time interval: 0: 00 minute per week to 0: 45 minutes and Monday 1: 00 hour and 2: 00 hour。

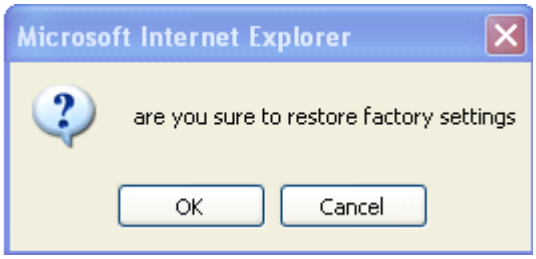


3.4.13. Reset/Firm Ware Upgrade

This sector is for camera firmware upgrade, it includes device system firmware and device application firmware. Be careful to apply for it!

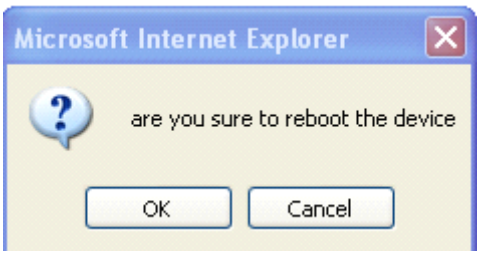
3.4.14 Restore factory Settings

If users forget password, we can restore ex-factory settings, when click the key, a picture will pop up, Click ok, and wait for 1 minute then you can use it normally. User setting feature restores



3.4.15 Reboot Equipment

Click restart, it appears the below picture, click ok, wait for 1 minute and you can use it normally.



4.Central Management System

please refer to Central Management System User manual

5. Mobile Access

5.1. Smart phone Access

The smart phones are the mobile phones with operating system, such as Windows Mobile and Symbian. Due to its powerful function, the web page browser of such phones usually supports Javascript. That's why it can visit the dynamic pages of the IP camera through web page browser.

First of all, the mobile phone must open internet access function.

Use the browser on the phone to visit the address of the IP camera, e.g. http://demo.ipcam.hk ("demo" is the Serial No. Each device has only one Serial No)

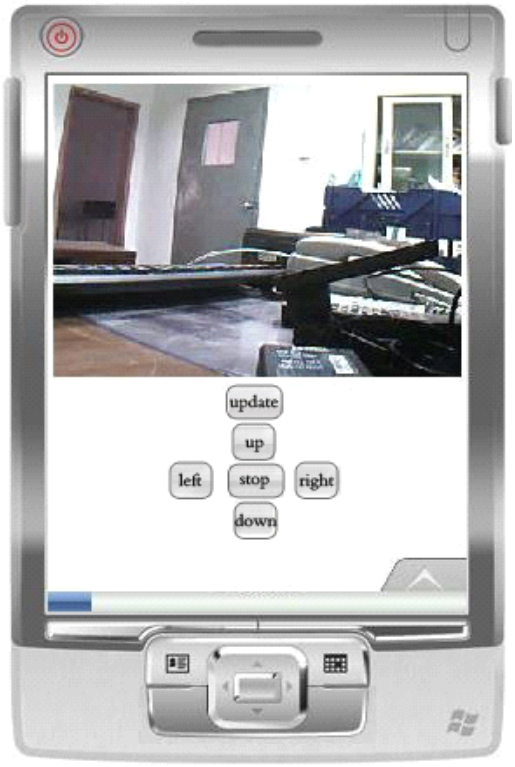
Next, taking the Opera mini 4 Version on Windows Mobile as an example, we are going to introduce the whole procedure.Enter access address http://demo.ipcam.hk in the browser address bar, the following interface will appear:

2. Input the Username and Passoword of the device, and the following interface will appear. There are three log-in options. Click on the third “Sign in” and use Mobile Phone mode.

Language is used to select the display language.

Do not show next time: When this option is selected, this interface will not appear when you log in next time. It will directly skip to the monitor image..

Description for the monitor image:



Instruction for the Key Function:

Update: it is used to refresh the page. If the monitor piture is kept still, you may press this key to update the page.

Up, down, left, and right: They are used to rotate the camera P/T. The camera without P/T does not have these keys.

Stop: Stop to rotate the camera P/T

The Download address of the mobile browser Opera mini: http://mini.opera.com. Download the Opera mini browser according to the mobile model.

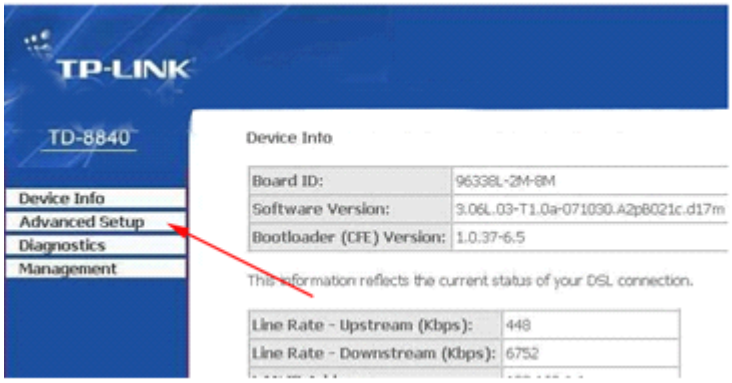
6. Others

6.1. Port Forwarding Settings in router

When users visit the IP camera via outside web, port forwarding settings in router is a needed. Different brands of routes called the port forwarding differently, but basically their operation method are the same.

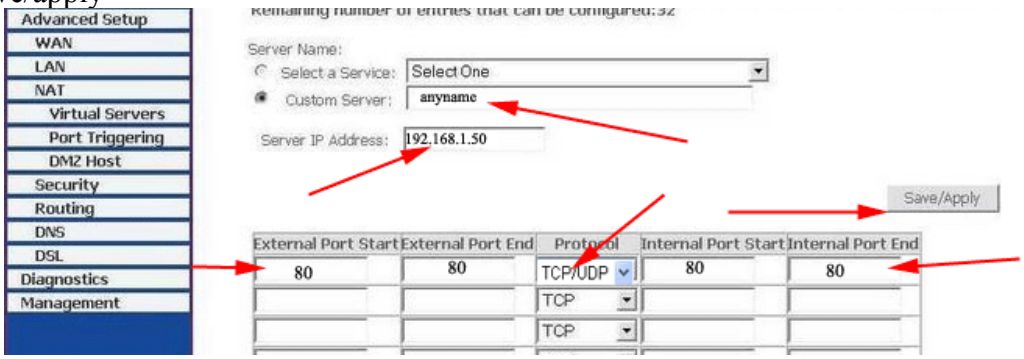
Let's take the TP-LINK TD-8840 router's port mapping setting for example. Router's inner web IP address is 192.168.1.1, IP camera's inner web address is 192.168.1.50, and port is 85.

1. First log in router's web administration interface.
2. Click "Advanced Setup" on the left side



3. Click “virtual server” in the unfolded menu.

4. fill “80” under the right **port start** or **port end**, **Server IP address** fill "192.168.1.50", protocol select "TCP/UDP"OR” “TCP” , finally don’t forget to click ““save/apply”



Detailed information please refers to following photo: When completed port forwarding, you can visit camera through device code in outer net remotely;
Common router default visit address are as follow:

1. DLINK ex-factory definition router address is 192.168.0.1
2. Linksys ex-factory definition router address is 192.168.1.1
3. 3com ex-factory definition router address is 192.168.2.1
4. Microsoft ex-factory definition router address is 192.168.2.1
5. Net gear ex-factory definition router address is 192.168.1.1
6. Asus ex-factory definition router address is 192.168.1.1

6.2. F series Production Specification （Part）

This series produce own variety configured specification. Users can choose the best one according to their requirement..

Image	Specification
	Bullet camera, wired/ wireless selected, indoor
	Infrared bullet camera wired/wireless selected, infrared 20m/40/50m selected indoor/waterproof selected lightning protection design
	Wired/Wireless selected, infrared 10 m Audio selected Level & vertical rotation P/T
	Cell indoor select infrared night vision 20 m
	Cell indoor overall rotation P/T 5” or 3.5” mini dome, audio selected

7.Frequently Asked Questions

Question: Why can not I find our camera using search bar ?
Answer: 1. Please checks whether IP camera and search bar be located in the same LAN network;
2. Maybe the problems of Internet cable or power connection【Under normal circumstances, power light (yellow) constant on, network light (green) constant sparkle】
3. Whether there is a firewall installed in the computer.

Question: Do F series products support P2P technology ?
Answer: Yes. Users could visit it by centralized management interface or platform to realize P2P visit. Applying P2P technology can solve the problems raised by multiple users visit one IP camera at the same time, which is mainly b/c the network technology allow users to share IP camera video data.

Question: What is the max piece number that F series motion detection area support?
Answer: F series support 1 piece motion detection area, which is a whole image.

Question: Do the F series product allow the users to browse dynamic video through cell phone?
Answer: Yes, but only the cell phone which supports JAVA can.

Question: Where can we download cell phone visiting program?
Answer: Please refer to the first chapter of help text of cell phone visiting.

Question: Does centralized monitor interface support Vista & Linux system?
Answer: Just Vista system. Right now it do not support Linux system.

Question: How to set IP camera the same network segment as PC in LAN
Answer: First you can use search bar to find out the camera, then click auto set button.

Question: What mode of cell phone does the F series camera allow to visit?
Answer: Generally, cell phone with Java MIDP 2.0 program can watch dynamic video.

Currently, confirmed cell phone modes are NOKIA E71, 6122C MOTO A3000，NOKIA N70-73 N95 N98，Samsung U608 etc.

Question: why the cell phone software can't visit IP camera?
Answer:
1. Please check whether cell phone support Java program;
2. Whether the cell phone open WAP function, and set WAP factors correctly. .
3. Make sure that IP camera can be visited through the internet;

Question: Why IP camera's image is too white or too dark.
Answer: Open IP camera interface, try to modify camera mode.

8. Warranty

In the period of warranty, any breakage resulting from products 'own failures. Users will be free of charge of its maintenance.

8.1. Warranty Terms

a) Free-Charge maintenance period of the product is one year, during this time; we can repair it for free (Damages not caused by misuse or vandalism). Repair over guarantee period, we will charge maintenance fee.
b) During guarantee period, breakdown caused by misuse or other reasons out of range of warranty. Users can repair it by showing this card. We only charge for components.
c） When the products need maintenance, hand up the card with products to the manufacture or local distributor.
d)Taking apart item crust and tearing up the sealing label privately is out of warranty range.
e)We do not repair the damaged item due to modification or add other functions.

Under the Following Circumstances, the maintenance will be charged:
a) Period check, maintenance or change components due to normal attrition.
b) The damages due to crash, extrusion, artificial flooding, moisture or other personal reasons.

c) The damages due to floods, fire, lightning strike and other natural calamities or force majored incidents factors
d) Repaired item by non-authorized repair centers.

All above terms, if these is any changes; they should according to relevant regulations.

8.2. Warranty Card

Manufacturing Date: Product Specification:
Inspector:
Version number :

Product Model		
Sale Dates		
User Company		
User name		
Customer Address		
Contact Number		
Maintain Date	Failure Conditions	Results of Maintenance
Remark:		

Note: please fill the card and offer it with products if guarantee of repair